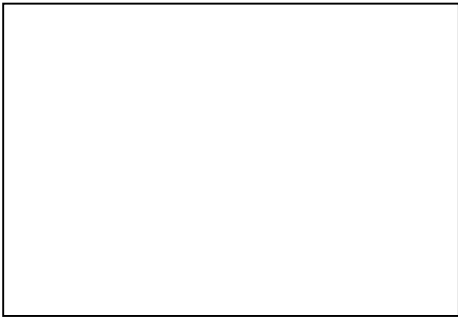


2-5: The Graph of $y = kx^2$

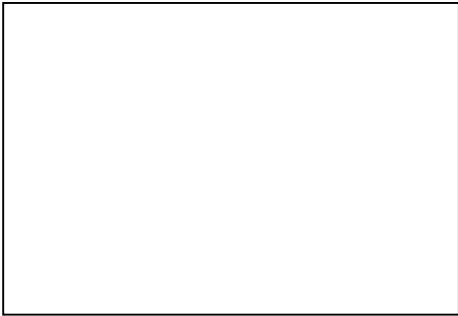
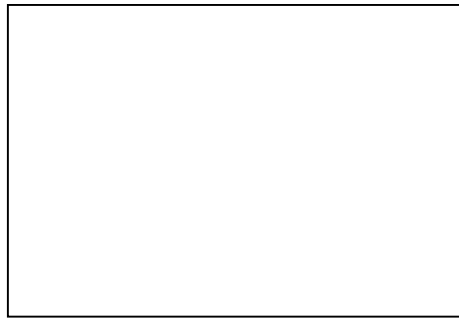
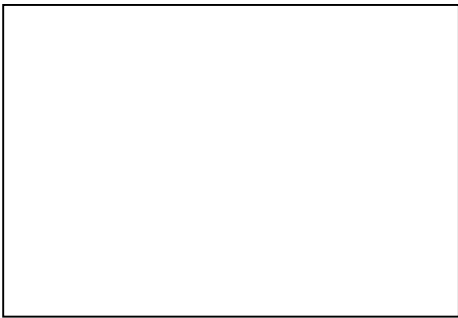
Warm-up: Open your book to page 94 and complete the In-Class Activity (skip #5).

1. a.



b.

2.



b.

c.

d.

3.

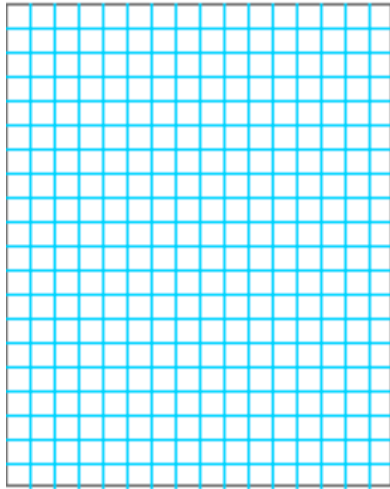


4.

Example 1: Finish the table and plot the points:

$$y = 3x^2$$

x	y
-2	
-1	
0	
1	
2	
3	



$$y = \frac{1}{3}x^2$$

x	y
-2	
-1	
0	
1	
2	
3	

Can we draw a line through these points?

Further exploration: Graphing calculators! Graph the above equations in your calculator. Do you recognize the shape?

Graphs of the form $y = kx^2$:

Characteristics:

1. *Reflection-symmetric:*
- 2.
- 3.

Example 2: Graph $y = -4x^2$ and $y = \frac{1}{4}x^2$ in your graphing calculator.

a. Describe the two graphs.

b. What are the domain and range of each graph?

Vertex:

Homework:

**"If you can't explain it simply, you don't understand it well enough" -
Albert Einstein**